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ABSTRACT

To assist districts in analyzing and using the second set of results (the summary reports for class, school and district) from the New Jersey Minimum Basic Skills Tests, this guidelines booklet was developed. The booklet is divided into four main sections: (1) required interpretation of the summary reports: (2) interpretation checklist: (3) suggested procedures for the interpretation process: and (4) using the summary reports for program assessment. In addition, appendices contain a glossary of terms, statewide responses to General Information Questions for grades 3, 6, 9, and 11, levels tested, an item analysis for each test by grade and subject (reading and mathematics), and descriptions of district factor group and community type. This booklet was specifically designed for use with the 1979-80 Minimum Basic Skills summary reports, and should not be confused with the guidelines booklet for the student roster, or guidelines booklets from previous years. (RL)

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New Jersey Minimum Basic Skills Testing Program 1979-80

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SCHOOL DISTRICT GUIDELINES: HOW TO INTERPRET AND USE THE CLASS, SCHOOL AND DISTRICT SUMMARY REPORTS

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PREFACE

Spring 1980 marked the third administration of the New Jersey Minimum Basic Skills (MBS) Tests. The first set of results from these tests, the Student Rosters and the Individual Student Reports, were returned to districts during April and May. To assist districts in analyzing and using those results, a guidelines booklet was developed and distributed at that time.

School districts have now received the second set of results from the MBS Tests: the summary reports for class, school and district. This guidelines booklet has been developed to assist in the required interpretation process.

This booklet is divided into four main sections:

(1) Required Interpretation of the Summary Reports,
(2) Interpretation Checklist,
(3) Suggested Procedures for the Interpretation Process, and
(4) Using the Summary Reports for Program Assessment.

In addition, Appendix A is a glossary of terms, Appendix B includes the statewide responses to the General Information Questions for each of the four grade levels tested, Appendix C contains an Item Analysis for each test by grade and subject, and Appendix D contains descriptions of District Factor Group (DFG) and Community Type (CT).

This booklet was specifically designed for use with the 1979-80 Minimum Basic Skills summary reports, and should not be confused with the guidelines booklet for the Student Roster, or guidelines booklets from previous years.

If you make use of the included suggestions for program assessment, or have additional ideas of your own, please share your thoughts with my office.

Sincerely,

Stephen Koffler

Stephen L. Koffler
Director
State Educational Assessment

REQUIRED INTERPRETATION OF THE SUMMARY REPORTS

Interpretation of the summary reports for class, school and district is required by the New Jersey Administrative Code (N.J.A.C. 6:39-1.1 et seq.). This process must be completed within the specified interpretation period prior to making the reports available to the public. This booklet will assist you in meeting the requirements of the Code and, in addition, will provide some suggestions for other uses of the assessment data. Before beginning the interpretation process, it is suggested that the interpreters review the New Jersey Administrative Code and then read through this booklet.[1]

Materials

Directories of Test Specifications and Items were distributed in the spring with the Student Rosters and Individual Student Reports. They contain all of the items, with the correct responses identified, for the 1979-80 Reading and Mathematics tests. There is a Directory for each grade level which is color-coded for easy identification. These booklets should be referred to as you examine each item and cluster on the summary reports.

The summary reports are computer print-out sheets which contain the item-by-item results for each grade level. There are separate reports for Reading and for Mathematics. There are three different summary reports, each of which must be interpreted and made available to the public. The three reports are:

(1) Class Report — gives the percent of students within each reading and mathematics class who correctly answered each item. There is a separate report for every class. Class summaries also list school and district results. Figure 1 shows a sample class summary report.

(2) School Report — gives the percent of students within the school who correctly answered each item, at each grade level tested. There are separate reports for every school. District results are also listed. Figure 2 is a sample school summary report.

(3) District Report — gives the percent of students in the entire school district who correctly answered each item on the test, at each grade level tested. Figure 3 is a sample district summary report.

Also distributed are summary reports for pupils coded special education (SE) and limited English-speaking (LE). These reports do not require interpretation and/or public release.

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[1] The New Jersey Administrative Code provisions pertaining to the Minimum Basic Skills Testing Program are outlined in Appendix B of the pink Guidelines Booklet distributed last spring.

This year, in addition to item performance, all the summary reports give the equated cluster average for each cluster. The percent of students correctly answering each item from all the districts having the same District Factor Group and Community Type as your district are also listed on all summary reports. In addition, item-by-item performance is provided for all the students tested in your county and the entire state.

Except for the addition of the equated cluster average, the summary reports for this year contain the same information as in previous years. The presentation of information on this year's summary reports has been revised. Therefore, before beginning the interpretation of any summary report, please examine Figure 1 closely. It shows the location of each type of test data mentioned above. In particular, note that the space for interpreters' names has been moved to the upper right corner. Clusters are now divided by solid horizontal lines. Within clusters, specifications are separated by broken lines.

Phase I Interpretation

The listing of item-by-item performance on the class, building and district reports is called "Phase I" interpretation. Interpretation of this set of results is required for all class, building and district reports. This part of the interpretation is considered most important in that it provides direct feedback on program effectiveness at the class, school and district level. Using these results, district personnel can judge performance based upon their expectations, knowledge of the curriculum, the children being tested and the actual test items. The use of these data for program assessment will be discussed later in the booklet.

Figure 2 shows where Phase I interpretations are to be written on all summary report forms. Note that the space for writing these comments is now in the center of the form.

The New Jersey Administrative Code requires that the chief school administrator participate in the interpretation of the district summary report, the school principal participate in the interpretation of the school summary report and teachers participate in the interpretation of the class summary reports. The names of the interpreters must be recorded in the upper right corner of the report on the lines designated "Reviewed by:..."

(1) Item Interpretation

Each item must be reviewed and an evaluation made concerning student performance. The interpreters' assessment of the level of performance must be indicated for each item. Level of performance is indicated by circling the appropriate letter (E, G, S, U or P) beside each item. The letters E, G, S, U and P are listed below with their correponding levels of performance:

E = Excellent—commendable/outstanding performance
G = Good—more than adequate performance
S = Satisfactory—average/adequate performance
U = Unsatisfactory—low/less than adequate performance
P = Poor—very low performance

Figure 2

PAGE 1 MIS NO 03C002 EXP 6/30/82 NEW JERSEY MINIMUM BASIC SKILLS TESTING PROGRAM 1979-80 REVIEWED BY 1:
2:
3:

SCHOOL REPORT - MARCH 1980

LEVEL 11 READING

SCHOOL: _____ DISTRICT: _____ COUNTY: _____

NUMBER TESTED = 67 DFG = G COMMUNITY TYPE = 4

CLUSTER / SPECIFICATION	ITEM NO.	PERCENT CORRECT SCHL	DIST		PERCENT CORRECT DFG	CT	CO	ST	
I. WORD RECOGNITION									
A ID WD MNG W CONTXT CLU	37	98	93	(E) G S U P	95	92	87	97	P
	38	94	91	E G (S) U P	95	84	92	97	H
	39	96	90	E (G) S U P	97	98	91	88	A
	40	98	91	E G S U (P)	93	88	90	95	S
	41	88	96	E (G) S U P	99	95	93	98	E
B ID SYN OF WD IN CONTXT	1	92	96	E G S (U) P	91	97	85	97	
	2	92	85	(E) G S U P	97	100	93	94	2
	3	99	90	E G S U P	97	92	86	97	
	4	96	97	E G S U P	89	98	89	82	
	5	100	93	E G S U P	99	93	81	97	C
C ID ANTONYM WD IN CONTX	75	92	94	E G S U P	99	93	98	83	L
	76	94	97	E G S U P	95	95	89	81	U
	77	91	99	E G S U P	87	94	99	97	S
	78	97	99	E G S U P	98	97	91	88	T
	79	97	100	E G S U P	97	93	89	95	E
D ID MNG WRD FORM CONTXT	6	87	82	E G S U P	93	100	95	98	R
	7	99	85	E G S U P	96	95	93	97	C
	8	89	94	E G S U P	98	93	91	86	O
	9	93	84	E G S U P	89	92	96	90	M
	10	92	89	E G S U P	96	99	92	97	M
EQUATED CLUSTER AVERAGE		91	89		95	91	88	90	E
									N
									T
									S
II. READING COMPREHENSION									
A IDEN MAIN IDEA STATED	18	98	84	E G S U P	94	98	9[illegible]	92	
	22	88	99	E G S U P	93	86	92	91	
	25	87	83	E G S U P	90	92	97	93	>
	65	99	85	E G S U P	83	97	95	97	>
	86	93	95	E G S U P	98	91	87	90	>
	89	87	93	E G S U P	91	95	93	90	>
B IDENTIFY FACTUAL INFO	19	89	95	E G S U P	97	85	97	89	>
	24	95	86	E G S U P	93	87	91	84	>
	26	82	89	E G S U P	91	96	84	94	>

Figure 1

PAGE 1 MIS NO 03C002 EXP 6/30/82 NEW JERSEY MINIMUM BASIC SKILLS TESTING PROGRAM 1979-80 REVIEWED BY 1: 2: 3:

[redacted] CLASS SUMMARY REPORT - MARCH 1980

LEVEL 11 READING

CLASS: 01 SCHOOL: _____ DISTRICT: _____ COUNTY: _____

[redacted] NUMBER TESTED = 22 DFG = G COMMUNITY TYPE = 4

CLUSTER / SPECIFICATION	ITEM NO.	PERCENT CORRECT CLASS	SCHL	DIST	PHASE 1 INTERPRETATION INTERP	ITEM COMMENTS	CLUSTER COMMENTS	PERCENT CORRECT DFG	CT	CO	ST
I. WORD RECOGNITION											
A ID WD MNG W CONTXT CLU	37	95	98	93	E G S U P			95	92	87	97
	38	97	94	91	E G S U P			95	84	92	97
	39	81	96	90	E G S U P			97	98	91	88
	40	95	98	91	E G S U P			93	88	90	95
	41	97	88	96	E G S U P			99	95	93	98
B ID SYN OF WD IN CONTXT	1	99	92	96	E G S U P			91	97	85	97
	2	93	92	85	E G S U P			97	100	93	94
	3	95	99	90	E G S U P			97	92	86	97
	4	93	96	97	E G S U P			89	98	89	82
	5	93	100	93	E G S U P			99	93	81	97
C ID ANTONYM WD IN CONTX	75	95	92	94	E G S U P			99	93	98	83
	76	92	94	97	E G S U P			95	95	89	81
	77	94	91	99	E G S U P			87	94	99	97
	78	93	97	99	E G S U P			98	97	91	88
	79	92	97	100	E G S U P			97	93	89	95
D ID MNG WRD FORM CONTXT	6	95	87	82	E G S U P			93	100	95	98
	7	98	99	85	E G S U P			96	95	93	97
	8	82	89	94	E G S U P			98	93	91	86
	9	97	93	84	E G S U P			89	92	96	90
	10	87	92	89	E G S U P			96	99	92	97
EQUATED CLUSTER AVERAGE		90	91	89				95	91	88	90
II. READING COMPREHENSION											
A IDEN MAIN IDEA STATED	18	94	98	84	E G S U P			94	98	97	92
	22	87	88	99	E G S U P			93	86	92	91
	25	93	87	83	E G S U P			90	92	97	93
	65	93	99	85	E G S U P			83	97	95	97
	86	97	93	95	E G S U P			98	91	87	90
	89	95	87	93	E G S U P			91	95	93	89
B IDENTIFY FACTUAL INFO	19	91	89	95	E G S U P			97	85	97	89
	24	98	95	86	E G S U P			93	87	91	84
	26	100	82	89	E G S U P			91	96	84	94

PHASE 2 CLUSTER COMMENTS

The performance level (percent of students correctly answering an item) which represents Excellent, Good, Satisfactory, Unsatisfactory and Poor should be established locally, and ideally is set for each item, based on the difficulty of the actual item and the interpreters' expectations of student performance.

(2) Item Comments

For each item for which U (Unsatisfactory) or P (Poor) has been circled, a comment must be made that states the reason for the low level of performance and/or how the need will be addressed.

(3) Cluster Comments

As part of the Phase I interpretation, a comment must be made for each cluster on all summary reports. The comment should summarize the overall performance for the cluster, including identified strengths and weaknesses, and how the identified needs will be addressed.

This year the summary reports include an average performance level for each cluster (equated cluster average). For example, an equated cluster average of 84% for "Word Recognition" signifies that on the average, 84% of the pupils tested correctly answered each question in the cluster. Comparing cluster averages from year to year will give you an indication of performance within each cluster.[2] This procedure is more accurate than comparing individual item performance from year to year.

Phase II Interpretation

The listing of performance by District Factor Group, Community Type, county and state is "Phase II." Phase II interpretation involves comparing local district cluster performance levels to the performance levels of comparable reference groups. This is a requirement only for interpretation of the district-level cluster performance for each grade and test. Phase II interpretation is optional for class and school results.

Figure 3 shows where Phase II interpretations are to be written in the area on the right side of the district report.

The interpreters should be the same people who conducted the Phase I interpretation of the district summary report.

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[2] Cluster averages from previous years must be equated. The Office of State Educational Assessment will provide these equated scores upon request.

Figure 3

PAGE 1 MIS NO 03C002 EXP 6/30/82 NEW JERSEY MINIMUM BASIC SKILLS TESTING PROGRAM 1979-80 REVIEWED BY 1:

2:

3:

DISTRICT SUMMARY REPORT - MARCH 1980

LEVEL 11 READING

DISTRICT: _____ COUNTY: _____

NUMBER TESTED = 108 DFG = G COMMUNITY TYPE = 4

CLUSTER / SPECIFICATION	ITEM NO.	PERCENT CORRECT DIST	PHASE 1 INTERPRETATION INTERP *	ITEM COMMENTS *	CLUSTER COMMENTS *	PERCENT CORRECT DFG	CT	CO	ST
I. WORD RECOGNITION									
A ID WD MNG W CONTXT CLU	37	93	E G S U P		•	95	92	87	97
	38	91	E G S U P		•	95	84	92	97
	39	90	E G S U P		•	97	98	91	88
	40	95	E G S U P		•	93	88	90	95
	41	96	E G S U P		•	99	95	93	98
B ID SYN OF WD IN CONTXT	1	96	E G S U P		•	91	97	85	97
	2	85	E G S U P		•	97	100	93	94
	3	90	E G S U P		•	97	92	86	97
	4	97	E G S U P		•	89	98	89	82
	5	93	E G S U P		•	99	93	81	97
C ID ANTONYM WD IN CONTX	75	94	E G S U P		•	99	93	98	83
	76	97	E G S U P		•	95	95	89	81
	77	99	E G S U P		•	87	94	99	97
	78	99	E G S U P		•	98	97	91	88
	79	100	E G S U P		•	97	93	89	95
D ID MNG WRD FORM CONTXT	6	82	E G S U P		•	93	100	95	98
	7	85	E G S U P		•	96	95	93	97
	8	94	E G S U P		•	98	93	91	86
	9	84	E G S U P		•	89	92	96	90
	10	89	E G S U P		•	96	99	92	97
EQUATED CLUSTER AVERAGE		89				95	91	88	90
II. READING COMPREHENSION									
A IDEN MAIN IDEA STATED	18	84	E G S U P		•	94	98	97	92
	22	99	E G S U P		•	93	86	92	91
	25	83	E G S U P		•	90	92	97	93
	65	85	E G S U P		•	83	97	95	97
	86	95	E G S U P		•	98	91	87	90
	89	93	E G S U P		•	91	95	93	89
B IDENTIFY FACTUAL INFO	19	95	E G S U P		•	97	85	97	89
	24	86	E G S U P		•	93	87	91	84
	26	89	E G S U P		•	91	96	84	94

Cluster Interpretation — A cluster comment must be made which summarizes the overall performance of the district on each cluster when compared to the performance of the reference groups. Identified strengths and weaknesses should be noted as well as an indication of how weaknesses will be addressed.

In order to make the cluster comment, the interpreters should determine if the district item performance and overall performance on the cluster as a whole are above, comparable to or below the reference groups' scores, particularly those of the District Factor Grouping (DFG) and Community Type (CT).[3]

Interpretation Checklist

This checklist indicates all required steps for interpreting and releasing summary reports. Please be sure that all steps have been completed.

(1) Has a performance indicator (E, G, S, U, P) been circled for each item on all reports?

(2) Has a comment been made for each item which had a performance indicator of U (Unsatisfactory) or P (Poor) circled?

(3) Has a comment been made summarizing performance for each cluster in Phase I for all reports?

(4) Has a cluster comment been made for each cluster in Phase II for the district reports?

(5) Have the teachers involved in the interpretation signed the class reports?

(6) Has the principal, in addition to the other interpreters, signed the building reports?

(7) Has the chief school administrator, in addition to the other interpreters, signed the district reports?

(8) Has the principal submitted one copy of each class report along with two copies of the building report to the district?

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[3] See Appendix A for definitions and Appendix D for descriptions.

(9) Has the chief school administrator submitted (within the 45-day period provided by the New Jersey Administrative Code) one copy of each building report along with one copy of each district summary report to the County Superintendent for review and approval?

EXCEPTION: Districts which contain only one school at the tested grade level(s) must submit only the building-level summary report.

(10) Has notification of approval from the County Superintendent been received?

(11) Have the interpreted district, building and class summary reports for both tests in all grades tested been made available to the public?

SUGGESTED PROCEDURE FOR THE INTERPRETATION PROCESS

The preceding requirements must be met by all districts. However, the method used by districts to interpret results can vary. Described below is a suggested procedure.

Establishing Interpretation Committees

The membership of interpretation committees may change depending on the results being reviewed. Committee members should be familiar with the curriculum and with the students who were tested. Interpretation committees at each grade level should also include teachers from preceding grades. For example, the committee reviewing the building results for sixth-grade mathematics should consist of the principal, the sixth-grade mathematics teachers, and a representative of the fifth- and fourth-grade mathematics teachers. Such a committee would provide the best information on the curriculum and the students being tested. Inclusion of the fourth- and fifth-grade teachers would provide information about the curriculum leading to the skills being assessed on the sixth-grade test.

Interpretation Procedure

(1) Supply the committee members with copies of the Directories of Test Specifications and Items for the grade levels being reviewed. Each specification and item should be examined in light of the curriculum and the instructional experiences that were part of the students' programs. Based on this knowledge, the members can establish a reasonable expectation for the level of performance for each item. For example: The specification tested by a particular item has been widely covered in the program, and has been determined by the committee to be not too difficult. As a result, the committeee determines that it is reasonable to expect that 95% of the students should correctly answer that question. The expected level of performance is recorded and the process is repeated for all of the items.

(2) Supply the committee with the computer-generated summary results for review. The committee can compare actual performance with expected performance, and then determine whether the actual performance was E (Excellent), G (Good), S (Satisfactory), U (Unsatisfactory) or P (Poor). See page 5 for an explanation of these performance categories.

(3) Following analysis, a comment is made for those items where performance was considered U (Unsatisfactory) or P (Poor), stating the reason for the low level of performance.

(4) Overall performance in each cluster is summarized in a series of statements, identifying perceived strengths and weaknesses and including plans for addressing the weaknesses.

(5) The overall performance on each test as a whole is summarized and recommendations made for addressing identified needs.

The same process can be used when interpreting the district results. The district-level interpretation committee (ideally) should include those staff members who were involved in the building-level interpretation, in addition to the chief school administrator.

It should be remembered that this is a suggested procedure which can be used or modified as needed as long as the required people are involved at each of the levels and the required analyses are performed.

Narrative Report

Some districts develop narrative reports to accompany their summary report interpretations. Although this is optional, a narrative summary could be valuable when used as the basis for your testing report to the board of education and to the public. Outlined is one format which may be used:

I. BACKGROUND INFORMATION

- A. Briefly describe the nature and purpose of the Minimum Basic Skills Tests.
- B. Discuss the number of students tested by grade, building and district. Include the figures from previous years. Show increases/decreases in the number of students tested.

II. CLUSTER NARRATIVES

- A. Summarize strengths, weaknesses and other comments from the completed interpretations.
- B. Complete this process in each subject area for each grade level.

III. SUMMATIVE NARRATIVES

- A. Synthesize cluster narratives across grade levels for each subject. Statements should be made about general strengths and identified needs.
- B. Include statements of comparison of current year's overall results with previous year's results in an effort to identify possible trends in student performance.

IV. RECOMMENDATIONS

A. Prepare a list of recommendations which includes a statement of needs and possible plans of action to address the identified needs.
B. Develop list of short- and long-range objectives for total basic skills program (developmental and preventive-remedial).

NOTE: It is suggested that someone familiar with the test results and the interpretation process be present when test results are examined by the public so that questions can be answered and misunderstandings and misinterpretations avoided.

USING THE SUMMARY REPORTS FOR PROGRAM ASSESSMENT

No single test should be the sole indicator of a student's proficiency in the basic skills. This is also true when conducting program assessment. The Minimum Basic Skills Test should not be the sole indicator of program strengths or weaknesses. However, the results from these tests are valuable indicators of areas where further analysis is necessary.

As the MBS results are analyzed, remember to examine the information from other assessment instruments such as commercial standardized and/or unit tests which measure the same skills as the MBS Test. If the same areas of weakness are indicated on more than one assessment instrument, then the instructional programs and curriculum should be examined carefully to determine if modifications are needed.

To assist in your program analysis, two suggested methods of data collection, the "MBS Performance Log" and the "Skills Sequence Survey Chart" have been included. The Log and the Chart are only suggestions, and are not part of the interpretation requirements.

MBS Performance Log

When interpreting the summary reports, data can be recorded to assist in your program assessment. A suggested format for recording such data is presented in Figure 4. The way you collect and record the data can vary; the log shown is only one possible method. The MBS Performance Log, as shown in Figure 4, allows for the inclusion of the following data: cluster, specification, item number, performance indicator (E, G, S, U or P), and space for comments and analysis. Completion of the log while interpreting the results could result in an effective summary of strengths and weaknesses and serve as the basis for more detailed analysis of programs.

When an item or entire specification has been identified as exhibiting "Poor" or "Unsatisfactory" performance, examine other available assessment data to determine if the level of performance was consistent. If so, record your comments and/or analysis in the space provided.

The analysis described above can occur for all levels of reporting—class, building and district. This process could be especially valuable at the class level if different programs are used in different classes. Particularly poor performance by one class in a skill area may indicate that the program being used does not adequately address that skill. Keep in mind that the Minimum Basic Skills Test is designed to measure performance on minimum essential skills, and does not measure higher-level skills.

Remember, your completed analysis of the Minimum Basic Skills Test results represents only the first step of your program assessment process. The Minimum Basic Skills Test should be used as an <u>initial</u> indicator of program strengths and weaknesses, and not the final word.

Figure 4

MBS PERFORMANCE LOG*

CLUSTER	SPECIFICATION	ITEM	PERFORMANCE INDICATOR	COMMENTS—ANALYSIS
NUMBER CONCEPTS	Equivalent fractions	84 94	S E	
	Relative size fraction	92	G	
	Mixed number to improper fraction	97	E	
	Fraction to decimal	73	P	Review should be made of skill's place in curriculum sequence—further diagnosis necessary
	Percent to decimal	90	G	
	Round decimal 1	79	U	Administer diagnostic test to determine if problem is with decimals or rounding
	Round decimal 1	71	U	Administer diagnostic test to determine if problem is with decimals or rounding

* This form is not required as part of the interpretation process. It is a suggestion which could be used in program assessment.

Skills Sequence Survey Chart

The Minimum Basic Skills Tests are administered to pupils in grades 3, 6, 9 and 11. However, the skills being assessed are not necessarily taught in just those grades. Many of the skills being assessed are cumulative. To assist districts in analyzing their sequence of skills, and to stimulate articulation across grade levels, the chart in Figure 5 could be used.

To use the chart, follow the steps listed below:

(1) Prepare and duplicate a chart for each grade span and test subject (e.g., Figure 5 is for Grade 3 Reading).

(2) List all skills measured by the particular test across the top of the grid. Use the specification booklet for each grade to determine these skills.

(3) Vertically the chart could represent grades K, 1, 2, 3, 4, 5 for the third grade; 4, 5, 6, 7, 8 for the sixth grade; 7, 8, 9, 10, 11 for the ninth grade; and 9, 10, 11, 12 for the eleventh grade.

(4) Teachers in grades before, including and after the grades tested would individually fill out a grid according to the following code:

(I) Introduced — indicating the grade at which the skill is initiated
(R) Reinforced — indicating the grade at which the skill is extended/refined
(E) Established — indicating the grade at which the skill is firmly established

(5) After each teacher's chart has been completed, develop a master chart which aggregates the data.

(6) Examine the data in view of the instructional sequence. Look especially for omissions and/or repetitions in the skill sequence; such discrepancies might indicate a gap in the instructional program.

(7) Summarize the data and meet with the staff to discuss the findings and sequence the skills.

Figure 5

SKILLS SEQUENCE SURVEY CHART

MBS Test Grade: 3 Subject: Reading

	WORD RECOGNITION									COMPREHENSION		
GRADE	Sight vocabulary	Vowels	Single consonants	Consonant clusters	Rhyming words	Blending sounds	Inflectional endings and plurals	Contractions	Contextual analysis	Identify facts as stated	Identify subject matter of the paragraph	Order and sequence
K	I		I		I							
1	I/R	I	I/R	I	R		I	I		I		
2	I/R	I	E	R	E		I/R	R		R		
3	R	I/R	E	E	E		E	R		R		
4	E	E	E	E	E		E	E		E		
5	E	E	E	E	E		E	E		E		

KEY: I = Introduced (the skill is initiated)
R = Reinforced (the skill is extended/refined)
E = Established (the skill is established)

What to Do With the Information

When the analysis has been completed, the results should be shared with the entire staff. The Minimum Basic Skills Tests do not measure one year's learning, but rather all of the students' educational experiences in the particular skills to date. If it is determined that program modifications are needed, it is necessary to identify the nature of these modifications with assistance from the staff. Frequently, program modifications need not be drastic in nature. It is not necessary to eliminate an entire program because of one demonstrated area of weakness. The modification needed may be minor, such as:

(1) Changing the location of the skill development in the program sequence. Introducing the skill at a different time may be all that is needed.

(2) Changing the instructional strategy. The method by which the skill is presented may be the only change needed.

(3) Supplementing the regular program. Reinforcement of the skill may be all that is needed.

If major revisions are needed, the selection of a new program should be done in a systematic fashion. Determine your needs accurately and select or design a program to meet those needs.

As you proceed through your program analysis, you may ask for assistance from the staff of the County Office, the Educational Improvement Center, and the Office of State Educational Assessment.

SPECIAL REPORTS

In addition to the summary reports described in this booklet, various special reports are available upon request from the Office of State Educational Assessment. However, requests must be made prior to the actual test dates. There are four different kinds of special item analysis reports that a district may request. These are:

(1) State Compensatory Education (in Reading and Mathematics)
(2) Title I (in Reading and Mathematics)
(3) District-Designed (in Reading and Mathematics)
(4) District-Wide (in Reading and Mathematics)

Each report consists of an item-by-item analysis of the percent of students correctly answering the item, the percent of students choosing each of the incorrect choices, and the percent of students omitting the item. The four reports and procedures for requesting them are described in the District Coordinator's Manual on pages 5-7.

The special item analysis reports will be sent from the Office of State Educational Assessment after the regular summary reports are sent from the test contractor.

This booklet contains requirements and suggestions for interpreting results and optional uses of the Minimum Basic Skills Summary Reports. The Office of State Educational Assessment invites your comments and ideas for additional uses of the MBS Test results. Please feel free to contact us at:

Office of State Educational Assessment
New Jersey Department of Education
222 West State Street, Room 200
Trenton, New Jersey 08625

APPENDIX A

GLOSSARY

1. CLUSTERS — Clusters are groups of items which measure similar skills (e.g., word recognition cluster includes items which measure syllabication, root words, contractions, etc.)

2. COMMUNITY TYPE (CT) — There are nine identified community types such as: urban, suburban, rural, etc.

3. DIRECTORY OF TEST SPECIFICATIONS AND ITEMS — Four booklets, one for each grade tested, containing specifications and items for each test.

4. DISTRICT FACTOR GROUPING (DFG) — Data were gathered from the 1970 United States Census to obtain a measure of a district's socioeconomic status. These groups are labelled from A (lowest) to J (highest), V (Vocational), and Z (other).

5. EQUATED CLUSTER AVERAGE — The percent of students, on the average, correctly responding to each item in the cluster.

6. GUIDELINES BOOKLETS — Two booklets which are designed to provide information and suggestions for the interpretation and utilization of Minimum Basic Skills Test results. The first guidelines booklet is sent to schools in the spring. The second guidelines booklet is sent to the schools in the fall with the Minimum Basic Skills Summary Reports.

7. INDIVIDUAL STUDENT REPORT (ISR) — Two copies are returned in the spring for each student tested. Included on the report are:

   a. Student's response for each item on test
   b. The skills measured by each test item
   c. Total Minimum Basic Skills Score in both Reading and Mathematics
   d. Percent correct on each test
   e. Instructions to parents on how to read report

8. ITEMS — Questions to measure each test specification. New items are written each year, but the specifications remain the same.

9. LIMITED ENGLISH-SPEAKING (LE) — Code used for students who are identified as having limited English-speaking ability.

10. MINIMUM BASIC SKILLS SCORE — A score ranging from 0-100. The Minimum Basic Skills Score was developed to allow for comparisons between previous years' Minimum Basic Skills Test and this year's Minimum Basic Skills Test.

11. MINIMUM BASIC SKILLS STATE REPORT — Interpretation of item performance of students throughout the state.

12. MINIMUM BASIC SKILLS (MBS) TEST — Measures skills which were identified by educators, parents, students and other citizens in New Jersey as the minimum reading and mathematics skills which should be mastered by students by the end of grades 3, 6, 9 and 11.

13. PHASE I INTERPRETATION — Interpretation of item performance by students on class, building and district summary reports.

14. PHASE II INTERPRETATION — Interpretation of item performance by students on district summary report compared to reference groups (DFG, Community Type, County, State Scores).

15. SPECIAL EDUCATION (SE) — Code used for students classified as handicapped.

16. SPECIFICATIONS — Reading and mathematics objectives which should be mastered by students at the end of grades 3, 6, 9 and 11. The objectives were identified by a large cross-section of educators and non-educators in New Jersey. (Example of specification: Given a simple sentence with the stimulus word underlined, the student will be able to identify the synonym of the word underlined when given four word choices visually presented.)

17. STATEWIDE STANDARD — Scores identified as minimum standards to be achieved by students to pass the test. The standards are a Minimum Basic Skills Score of 75 for Reading and a Minimum Basic Skills Score of 65 for Mathematics.

18. STUDENT ROSTER — Two rosters are returned to each school in the spring, one for Reading and one for Mathematics. Included on this report are:

    a. Names of all students tested in descending order of performance
    b. Each student's Minimum Basic Skills Total Score
    c. Score indices which represent a range of performance for each skill cluster on the test
    d. Total number of students tested, excluding students whose answer sheets were voided and students coded Special Education (SE) and Limited English-Speaking (LE)
    e. Total number and percent of students tested who met the statewide minimum standard
    f. Number of answer sheets voided
    g. Number of students coded SE
    h. Number of students coded LE

19. SUMMARY REPORTS — Three different types of summary reports are returned in the fall. They are:

    a. District Report — Lists percent of students correctly answering each item by subject and grade level across the entire district. Also lists performance on each item for all students tested in the state, the district's county, comparable types of communities, and in districts with comparable socioeconomic indicators (DFG).

    b. Building Report — Same information as on District Report with the addition of percent of students correctly answering each item from that building.

    c. Class Report — Same information as on Building Report with the addition of percent of students correctly answering each item from each class in each building.

20. VALIDATION — A process which uses other tests, teacher evaluation, student performance and parent conferences to confirm or "validate" Minimum Basic Skills Test results (New Jersey Administrative Code 6:8-3.4). Minimum Basic Skills Test results should not be used as the sole indicator of student proficiency in the basic skills.

APPENDIX B

1979-80 GENERAL INFORMATION QUESTIONS

The data recorded below represent the statewide student responses to the general information questions on this year's New Jersey Minimum Basic Skills Tests. These percentages are based on random samples of approximately 2,000 students from each grade. The percent of students selecting each response has been listed for each question by grade tested. (The total percent of responses to each item may not equal 100 due to rounding.)

Some of the more significant statistics show that approximately 43 percent of the students tested have changed schools one or more times because they moved. Approximately 15 percent of the students speak a language at home other than English, and 60 percent of the ninth- and eleventh-grade students plan to attend college.

GRADE 3

1. Have you always gone to this school?

57%	A. yes
41%	B. no
2%	no response

2. Do you like reading?

87%	A. yes
11%	B. no
2%	no response

3. Do you like math?

75%	A. yes
23%	B. no
2%	no response

4. Do you like to read books at home?

80%	A. yes
18%	B. no
2%	no response

5. Do you speak a language other than English at home?

17%	A. yes
81%	B. no
2%	no response

GRADE 6

1. Have you always attended school in this district?

61%	A. yes
38%	B. no
1%	no response

2. How many times have you changed schools since first grade because you moved?

57%	A. none
35%	B. 1-3
6%	C. 4-6
1%	D. more than 6
1%	no response

3. Which subject do you like best?

11%	A. English
47%	B. Math
24%	C. Science
17%	D. Social Studies
1%	no response

4. How many hours do you spend on homework each week?

56%	A. fewer than 5 hours
36%	B. 5 to 10 hours
6%	C. 11 to 15 hours
2%	D. more than 15 hours
2%	no response

5. What kind of student do you consider yourself?

10%	A. an excellent student
60%	B. a good student
27%	C. a fair student
1%	D. a poor student
1%	no response

6. Do you speak a language other than English at home?

15%	A. yes
83%	B. no
1%	no response

7. Do you like to read books in your spare time?

72% A. yes
27% B. no
1% no response

8. How much television do you usually watch on a weekday?

7% A. less than 1 hour
27% B. 1 to 2 hours
29% C. 3 to 4 hours
36% D. more than 4 hours
1% no response

9. Do you go to the public library?

73% A. yes
26% B. no
1% no response

GRADE 9

1. Have you always attended school in this district?

57% A. yes
40% B. no
2% no response

2. How many times have you changed schools since first grade because you moved?

53% A. none
37% B. 1-3
6% C. 4-6
2% D. more than 6
2% no response

3. What subject do you like best in school?

23% A. English
33% B. Math
24% C. Science
17% D. Social Studies
3% no response

4. How many hours do you spend on homework each week?

51%	A.	fewer than 5 hours
38%	B.	5 to 10 hours
7%	C.	11 to 15 hours
2%	D.	more than 15 hours
1%		no response

5. What do you consider yourself academically?

7%	A.	an excellent student
42%	B.	a good student
46%	C.	an average student
2%	D.	a poor student
2%		no response

6. Do you speak a language other than English at home?

15%	A.	yes
83%	B.	no
2%		no response

7. Do you expect to go to college when you graduate from high school?

57%	A.	yes
14%	B.	no
26%	C.	I don't know
2%		no response

8. Which of the following statements best describes the mathematics preparation you have had?

1%	A.	I have taken NO mathematics course since the eighth grade.
38%	B.	I have taken only mathematics courses such as general mathematics, basic mathematics, or business mathematics.
58%	C.	I have taken college preparatory mathematics such as algebra and geometry.
3%		no response

9. When did you take your last mathematics course?

89%	A.	I am currently taking a mathematics course.
8%	B.	in the 8th grade
1%	C.	in the 7th grade
0%	D.	in the 6th grade
2%		no response

10. Which of the following best describes your present high school program?

10% A. business or commercial
54% B. college preparatory or academic
10% C. vocational or industrial arts
23% D. general
3% no response

GRADE 11

1. Have you always attended school in this district?

59% A. yes
40% B. no
2% no response

2. How many times have you changed schools since first grade because you moved?

56% A. none
35% B. 1-3
5% C. 4-6
2% D. more than 6
2% no response

3. After you finish high school, what do you plan to do?

62% A. attend a 2- or 4-year college
13% B. attend a vocational or business school
13% C. go to work or join the military
10% D. other
2% no response

If you plan to go to college, answer Question 4. If you do not plan to attend college, skip to Question 5.

4. What kind of college do you plan to attend?

22% A. a four-year college in New Jersey
35% B. a four-year college out-of-state
10% C. a two-year college in New Jersey
6% D. a two-year college out-of-state
28% no response

5. How many hours do you spend on homework each week?

45%	A. fewer than 5 hours
39%	B. 5 to 10 hours
10%	C. 11 to 15 hours
3%	D. more than 15 hours
4%	no response

6. In which quarter of the class do you consider yourself academically?

26%	A. top quarter of the class
43%	B. second quarter of the class
26%	C. third quarter of the class
3%	D. bottom quarter of the class
2%	no response

7. Do you speak a language other than English at home?

13%	A. yes
85%	B. no
2%	no response

8. Which of the following statements best describes the mathematics preparation you have had?

1%	A. I have taken NO mathematics course since the eighth grade.
28%	B. I have taken only mathematics courses such as general mathematics, basic mathematics, or business mathematics.
29%	C. I have taken college preparatory mathematics such as algebra and geometry for 2 years or less.
40%	D. I have taken college preparatory mathematics courses for more than 2 years.
2%	no response

9. When did you take your last mathematics course?

69%	A. I am currently taking a mathematics course.
22%	B. in the 10th grade
6%	C. in the 9th grade
1%	D. in the 8th grade or before
2%	no response

10. Which of the following best describes your present high school program?

16%	A. business or commercial
54%	B. college preparatory or academic
12%	C. vocational or industrial arts
16%	D. general
2%	no response

APPENDIX C

ITEM ANALYSIS

The following tables list student responses for each item on each test. Each test is identified by grade and subject, and the item numbers are listed in numerical order. For each item, the percent of students selecting each response is then listed, with the correct response identified by an asterisk.

This information could prove useful when examining the item performance for your district, particularly as you compare your results with those of the state.

GRADE 3 READING - Percent responding to each alternative (based on a random sample of 2,158)

Item No.	A	B	C	D
1	0	0	0	99*
2	99*	0	0	0
3	0	1	99*	0
4	0	99*	1	0
5	1	99*	0	0
6	98*	1	0	1
7	0	0	99*	0
8	1	1	0	99*
9	0	99*	0	1
10	99*	0	0	0
11	1	98*	0	0
12	1	0	98*	0
13	2	1	1	96*
14	1	97*	0	0
15	98*	1	1	0
16	1	2	96*	0
17	96*	1	0	3
18	1	0	1	96*
19	2	2	94*	2
20	5	12	82*	1
21	1	84*	3	11
22	26	5	8	61*
23	3	85*	4	7
24	98*	0	1	1
25	71*	2	16	10
26	1	4	2	92*
27	26	8	4	63*
28	1	92*	3	3
29	0	99*	0	0
30	0	0	98*	1
31	7	0	1	91*
32	98*	1	1	1
33	7	1	0	92*
34	92*	1	5	2
35	1	2	86*	12
36	88*	9	1	1
37	9	5	1	84*
38	1	95*	2	2
39	3	2	1	94*
40	4	90*	2	4
41	95*	2	1	1
42	2	93*	2	4
43	2	1	86*	10
44	2	8	2	87*
45	1	1	97*	1
46	6	2	5	87*
47	94*	1	1	3
48	95*	2	2	1
49	2	2	93*	3
50	3	96*	1	0
51	95*	2	2	1
52	4	1	2	93*
53	2	9	88*	1
54	98*	1	1	1
55	0	93*	4	2
56	1	1	96*	3
57	95*	3	2	0
58	8	3	77*	12
59	3	87*	2	9
60	2	1	95*	1
61	5	12	2	80*
62	2	6	82*	9
63	7	87*	4	2
64	77*	17	3	2
65	2	2	92*	3
66	6	88*	3	3
67	2	6	1	91*
68	3	87*	8	2
69	2	1	94*	3
70	95*	2	1	1
71	74*	3	2	20
72	94*	2	1	2
73	5	4	85*	4
74	95*	1	1	1
75	90*	1	2	6
76	1	0	0	98*
77	96*	3	1	0
78	2	1	95*	2
79	4	94*	1	1
80	2	2	1	94*
81	0	97*	1	1
82	1	2	96*	1
83	2	95*	2	1
84	1	2	96*	1
85	0	2	1	97*
86	1	1	0	98*
87	99*	0	0	0
88	1	99*	0	0
89	1	0	99*	0
90	1	97*	2	0
91	99*	0	0	0
92	96*	1	2	1
93	7	2	87*	4
94	1	4	2	93*
95	4	92*	2	2
96	87*	9	4	1
97	2	4	88*	5
98	1	82*	9	9
99	2	86*	4	7
100	4	2	2	92*

*Indicates correct response. The total percent of responses to each item may not equal 100% due to rounding error and omitted responses.

GRADE 3 MATHEMATICS - Percent responding to each alternative (based on a random sample of 2,156)

Item No.	A	B	C	D
1	0	1	98*	1
2	0	98*	1	1
3	0	97*	1	1
4	1	0	1	98*
5	0	2	96*	2
6	2	94*	2	2
7	2	95*	1	2
8	1	1	1	96*
9	2	3	94*	1
10	5	89*	4	2
11	3	95*	1	0
12	7	4	86*	3
13	11	4	9	75*
14	5	4	79*	11
15	66*	19	9	5
16	13	7	19	60*
17	4	90*	4	1
18	74*	15	3	8
19	4	57*	4	34
20	3	82*	6	7
21	1	5	90*	3
22	2	2	1	95*
23	73*	8	6	13
24	11	5	4	80*
25	85*	8	3	4
26	13	8	20	58*
27	65*	8	15	10
28	82*	7	6	4
29	8	72*	7	11
30	79*	6	4	8
31	7	11	76*	3
32	63*	8	8	18
33	3	1	6	85*
34	89*	1	4	2
35	2	1	97*	0
36	2	3	94*	1
37	74*	7	6	13
38	95*	2	1	1
39	4	5	84*	6
40	2	86*	4	8
41	1	95*	2	1
42	0	2	97*	1
43	1	4	92*	3
44	9	88*	3	1
45	83*	8	5	4
46	6	84*	7	3
47	7	3	11	79*
48	3	2	89*	5
49	21	64*	11	3
50	5	4	88*	3
51	6	81*	3	10
52	7	5	81*	6
53	2	4	3	91*
54	1	90*	1	7
55	3	93*	2	1
56	10	8	64*	17
57	1	95*	2	1
58	2	3	5	90*
59	5	89*	2	3
60	5	17	8	68*
61	18	7	70*	4
62	69*	4	17	8
63	71*	12	8	7
64	4	5	6	83*
65	4	69*	10	14
66	6	11	75*	5
67	5	84*	3	5
68	9	5	83*	3
69	0	0	98*	1
70	79*	11	4	6
71	73*	8	11	8
72	4	6	49*	41
73	2	92*	5	1
74	2	91*	4	3
75	1	2	96*	1
76	9	83*	6	2
77	8	3	85*	3
78	98*	1	1	1
79	93*	2	4	1
80	7	6	83*	4
81	2	5	1	91*
82	83*	8	5	4
83	8	5	79*	6
84	4	3	91*	1
85	7	85*	3	5
86	8	5	5	81*
87	92*	3	2	3
88	11	9	3	77*
89	4	10	78*	7
90	4	4	6	86*
91	91*	1	2	5
92	3	2	3	92*
93	7	69*	15	8
94	1	3	92*	3
95	12	4	79*	4
96	91*	1	2	4
97	5	7	85*	2
98	87*	4	5	3
99	66*	23	3	6
100	3	5	83*	7

*Indicates correct response. The total percent of responses to each item may not equal 100% due to rounding error and omitted responses.

GRADE 6 READING - Percent responding to each alternative (based on a random sample of 2,209)

Item No.	A	B	C	D
1	1	1	97*	1
2	0	4	0	96*
3	98*	1	1	0
4	1	98*	1	0
5	0	3	94*	3
6	1	6	1	92*
7	0	4	77*	19
8	6	88*	1	4
9	98*	1	1	1
10	2	3	16*	79*
11	98*	1	0	0
12	7	90*	0	2
13	1	1	0	98*
14	2	94*	2	2
15	1	6	8	85*
16	1	11	87*	1
17	1	76*	22	1
18	4	0	94*	0
19	2	95*	2	1
20	0	2	93*	5
21	2	1	5	92*
22	3	5	1	91*
23	3	29	68*	0
24	1	96*	1	1
25	94*	1	3	1
26	2	1	1	96*
27	1	3	94*	1
28	3	92*	3	2
29	1	6	69*	24
30	90*	5	2	4
31	1	1	97*	1
32	73*	15	8	3
33	11	83*	2	3
34	4	7	4	85*
35	4	85*	3	7

Item No.	A	B	C	D
36	7	1	90*	2
37	0	98*	1	1
38	96*	3	0	1
39	2	24	71*	2
40	8	90*	1	1
41	2	64*	22	12
42	92*	1	5	2
43	2	97*	1	1
44	1	0	1	97*
45	96*	0	2	1
46	93*	3	2	2
47	1	97*	1	0
48	1	2	94*	3
49	1	1	1	98*
50	10	10	2	77*
51	54*	3	5	38
52	4	1	92*	3
53	2	5	78*	15
54	7	1	2	90*
55	88*	3	1	9
56	11	11	6	73*
57	97*	2	1	0
58	1	97*	1	1
59	97*	1	1	1
60	3	4	6	87*
61	7	85*	4	4
62	1	1	96*	1
63	2	5	5	89*
64	87*	9	2	2
65	13	13	1	73*
66	4	93*	2	1
67	92*	4	2	2
68	85*	1	1	12
69	6	82*	8	4
70	3	9	86*	1

Item No.	A	B	C	D
71	0	0	1	99*
72	1	1	90*	8
73	1	2	5	91*
74	82*	9	6	2
75	1	97*	1	0
76	0	2	1	96*
77	2	96*	1	2
78	1	1	1	97*
79	96*	2	1	2
80	1	2	1	95*
81	86*	7	4	4
82	1	3	3	93*
83	94*	1	3	2
84	88*	3	4	4
85	2	93*	4	0
86	7	5	7	81*
87	5	85*	7	3
88	10	2	86*	2
89	10	8	3	79*
90	6	86*	5	3
91	3	86*	7	3
92	85*	4	6	4
93	20	70*	1	9
94	5	9	85*	1
95	1	3	1	96*

*Indicates correct response. The total percent of responses to each item may not equal 100% due to rounding error and omitted responses.

GRADE 6 MATHEMATICS - Percent responding to each alternative (based on a random sample of 2,208)

Item No.	A	B	C	D
1	92*	4	4	0
2	1	97*	1	1
3	95*	2	2	1
4	2	93*	2	3
5	1	1	4	93*
6	94*	3	1	1
7	4	4	89*	2
8	1	11	2	85*
9	8	85*	3	4
10	1	8	4	86*
11	6	86*	2	6
12	0	3	3	94*
13	13	9	5	72*
14	2	19	76*	4
15	3	2	1	94*
16	3	10	86*	1
17	1	94*	2	2
18	78*	6	4	12
19	6	69*	5	20
20	1	6	91*	2
21	12	5	2	81*
22	3	7	82*	8
23	10	4	8	78*
24	53*	33	10	4
25	2	66*	2	29
26	22	3	11	63*
27	5	82*	5	7
28	85*	9	4	2
29	77*	6	14	2
30	7	6	11	75*
31	2	89*	6	2
32	22	3	4	69*
33	4	94*	0	1
34	2	1	96*	1
35	3	1	94*	2
36	1	5	5	88*
37	8	74*	16	2
38	13	2	84*	1
39	5	75*	2	18
40	7	5	86*	1
41	90*	2	1	6
42	2	92*	3	2
43	9	9	76*	6
44	8	5	84*	3
45	95*	2	2	2
46	96*	1	1	1
47	7	76*	9	8
48	1	5	9	85*
49	1	8	88*	3
50	3	68*	6	23
51	52*	9	21	18
52	7	42*	48	3
53	2	7	83*	7
54	91*	3	3	2
55	7	83*	5	4
56	12	10	74*	3
57	12	76*	7	5
58	2	4	87*	6
59	6	88*	2	3
60	6	7	4	82*
61	5	72*	19	4
62	16	6	75*	3
63	13	74*	4	8
64	56*	25	11	7
65	3	4	5	87*
66	13	74*	7	5
67	3	2	92*	3
68	2	1	92*	4
69	72*	7	21	0
70	9	74*	7	10
71	1	4	93*	2
72	88*	3	4	4
73	4	5	83*	8
74	6	7	79*	8
75	6	3	3	88*
76	5	2	3	90*
77	87*	4	3	6
78	2	3	69*	26
79	2	7	3	88*
80	88*	4	5	3
81	5	5	81*	9
82	61*	26	8	4
83	6	12	76*	4
84	18	13	21	48*
85	71*	6	11	12
86	6	71*	18	5
87	90*	3	4	2
88	16	11	65*	7
89	10	7	10	73*
90	8	55*	28	8
91	4	87*	4	5
92	7	6	80*	6
93	10	2	80*	8
94	15	19	16	49*
95	89*	5	3	2
96	17	10	69*	3
97	13	4	6	77*
98	3	5	88*	3
99	3	2	92*	2
100	93*	2	1	4

*Indicates correct response. The total percent of responses to each item may not equal 100% due to rounding error and omitted responses.

GRADE 9 READING - Percent responding to each alternative (based on a random sample of 2,564)

Item No.	A	B	C	D
1	90*	5	1	4
2	3	7	75*	15
3	2	90*	7	0
4	88*	2	2	8
5	3	1	2	94*
6	8	6	17	68*
7	3	11	84*	2
8	4	90*	2	4
9	1	12	2	85*
10	97*	1	1	1
11	90*	7	1	3
12	3	1	82*	14
13	20	15	1	63*
14	11	32	2	55*
15	10	83*	5	2
16	3	3	3	90*
17	2	94*	2	2
18	2	1	95*	1
19	90*	1	6	2
20	4	1	19	76*
21	11	2	85*	2
22	10	80*	6	4
23	4	9	83*	4
24	10	80*	5	5
25	5	16	65*	13
26	2	1	2	95*
27	1	1	97*	1
28	96*	1	1	2
29	3	8	3	86*
30	6	2	5	87*
31	1	23	75*	0
32	1	97*	1	0
33	1	3	91*	3
34	1	2	3	95*
35	73*	10	3	13
36	6	9	81*	3
37	88*	2	5	3
38	2	14	83*	1
39	86*	9	4	1
40	23	6	70*	1

Item No.	A	B	C	D
41	4	90*	1	5
42	21	66*	2	11
43	97*	1	1	1
44	2	1	92*	5
45	5	94*	1	1
46	2	95*	1	1
47	67*	3	28	2
48	2	4	2	91*
49	1	3	6	89*
50	69*	20	6	5
51	13	5	5	77*
52	18	72*	4	6
53	2	2	92*	3
54	6	6	6	82*
55	3	93*	2	2
56	96*	2	1	1
57	2	6	88*	4
58	3	6	88*	2
59	6	7	80*	7
60	2	2	1	94*
61	82*	6	4	7
62	5	83*	5	6
63	88*	4	4	3
64	2	15	79*	4
65	15	14	6	64*
66	3	94*	1	1
67	5	2	11	81*
68	2	2	93*	2
69	88*	6	3	2
70	5	3	82*	9
71	80*	9	4	5
72	15	23	48*	12
73	4	8	11	75*
74	7	2	87*	2
75	3	25	69*	3
76	72*	7	20	1
77	26	66*	4	4
78	4	15	2	79*
79	3	87*	3	7
80	85*	6	2	7

Item No.	A	B	C	D
81	9	1	5	84*
82	93*	5	1	1
83	59*	17	15	9
84	9	2	1	88*
85	14	1	81*	3
86	74*	9	7	10
87	2	4	91*	3
88	8	67*	17	9
89	4	6	86*	4
90	6	89*	3	2
91	92*	2	5	1
92	28	10	5	57*
93	10	9	5	76*
94	3	2	3	91*
95	94*	3	2	2
96	5	14	9	71*
97	93*	3	2	1
98	5	82*	7	5
99	9	10	77*	4
100	4	9	26	60*
101	2	9	2	86*
102	5	2	91*	2
103	8	2	89*	1
104	4	4	3	89*
105	7	79*	6	7
106	3	4	89*	3
107	6	7	78*	7
108	6	4	9	81*
109	88*	5	4	2
110	2	2	92*	3

*Indicates correct response. The total percent of responses to each item may not equal 100% due to rounding error and omitted responses.

GRADE 9 MATHEMATICS - Percent responding to each alternative (based on a random sample of 2,558)

Item No.	A	B	C	D
1	0	1	1	98*
2	4	7	12	77*
3	0	0	99*	0
4	0	97*	0	3
5	1	94*	4	1
6	93*	5	1	1
7	9	2	3	86*
8	93*	3	2	2
9	98*	1	0	0
10	4	20	5	70*
11	62*	5	3	29
12	1	2	95*	2
13	60*	22	16	2
14	12	6	72*	9
15	48*	21	6	24
16	1	6	2	90*
17	89*	6	1	3
18	82*	10	6	2
19	14	82*	2	2
20	90*	4	3	3
21	7	9	13	70*
22	1	88*	7	3
23	10	17	49*	24
24	1	9	84*	6
25	87*	8	1	4
26	11	86*	2	1
27	1	5	66*	27
28	7	83*	7	3
29	8	3	79*	10
30	2	79*	12	7
31	10	11	5	73*
32	74*	10	8	7
33	8	81*	3	8
34	5	79*	9	6
35	73*	10	8	9
36	10	76*	11	3
37	5	89*	5	1
38	3	91*	2	4
39	94*	2	3	1
40	4	90*	5	1

Item No.	A	B	C	D
41	2	1	94*	2
42	19	20	53*	8
43	10	8	9	73*
44	5	93*	1	1
45	8	4	82*	5
46	87*	4	8	2
47	87*	1	2	9
48	8	11	2	78*
49	30	62*	4	3
50	4	81*	5	11
51	9	62*	21	7
52	2	15	81*	2
53	11	25	26	38*
54	87*	2	8	2
55	74*	21	3	2
56	2	2	95*	1
57	5	6	74*	14
58	81*	12	3	3
59	5	1	93*	1
60	22	4	41*	32
61	7	54*	33	6
62	8	2	85*	3
63	1	95*	2	2
64	2	1	5	91*
65	11	73*	13	3
66	7	80*	4	9
67	8	26	15	51*
68	2	90*	3	6
69	14	26	55*	5
70	21	7	70*	3
71	5	7	7	81*
72	2	13	3	82*
73	3	94*	2	1
74	95*	2	2	1
75	11	19	30	40*
76	5	79*	7	9
77	1	9	18	71*
78	6	18	62*	14
79	69*	16	4	10
80	12	23	53*	12

Item No.	A	B	C	D
81	5	3	2	90*
82	2	93*	3	2
83	2	2	4	92*
84	4	5	61*	30
85	6	84*	5	4
86	4	84*	5	7
87	73*	13	9	5
88	78*	8	11	2
89	3	18	76*	2
90	8	9	71*	11
91	18	61*	20	1
92	1	19	76*	4
93	2	81*	13	4
94	64*	10	17	8
95	3	5	2	89*

*Indicates correct response. The total percent of responses to each item may not equal 100% due to rounding error and omitted responses.

GRADE 11 READING - Percent responding to each alternative (based on a random sample of 2,378)

Item No.	A	B	C	D
1	95*	2	1	2
2	12	0	1	86*
3	96*	1	3	0
4	1	88*	5	6
5	1	1	0	98*
6	4	84*	5	6
7	93*	2	1	4
8	1	1	89*	9
9	0	92*	3	4
10	96*	2	1	1
11	1	0	87*	12
12	93*	4	2	1
13	4	2	91*	2
14	0	4	0	96*
15	0	95*	1	3
16	88*	2	8	1
17	10	15	73*	2
18	99*	1	0	0
19	0	1	98*	1
20	3	86*	3	9
21	98*	1	1	0
22	2	96*	1	0
23	1	3	96*	1
24	1	98*	1	0
25	95*	2	1	1
26	0	96*	3	1
27	2	92*	5	1
28	3	1	94*	2
29	93*	3	2	2
30	8	87*	5	1
31	5	8	83*	4
32	3	32	9	55*
33	4	86*	7	2
34	3	4	2	88*
35	13	15	15	56*
36	96*	1	1	2
37	6	93*	1	1
38	0	97*	1	2
39	2	1	0	97*
40	0	4	1	95*

Item No.	A	B	C	D
41	1	84*	2	13
42	3	3	91*	3
43	1	8	86*	6
44	2	11	15	72*
45	1	2	1	96*
46	1	98*	0	0
47	1	0	0	99*
48	0	1	1	99*
49	0	0	99*	0
50	95*	2	2	1
51	6	90*	3	1
52	3	4	92*	1
53	71*	8	9	11
54	2	0	3	94*
55	1	1	97*	1
56	1	2	6	92*
57	1	91*	3	5
58	0	1	1	98*
59	4	83*	6	7
60	0	1	0	99*
61	2	95*	1	2
62	1	2	1	96*
63	0	5	92*	2
64	4	3	90*	2
65	85*	1	6	8
66	10	3	8	78*
67	85*	3	9	2
68	2	2	1	94*
69	0	93*	6	0
70	0	4	95*	1
71	1	94*	1	4
72	4	92*	3	1
73	3	8	4	84*
74	4	1	93*	1
75	4	94*	2	1
76	0	2	96*	2
77	95*	1	2	1
78	3	1	94*	2
79	2	94*	3	1
80	1	10	81*	8

Item No.	A	B	C	D
81	3	3	8	85*
82	1	2	30	66*
83	1	99*	0	0
84	0	0	99*	0
85	2	2	1	95*
86	93*	5	1	1
87	1	92*	3	4
88	11	4	79*	6
89	9	89*	1	0
90	7	0	1	91*
91	1	84*	2	13
92	2	5	89*	4
93	2	2	1	95*
94	86*	5	8	0
95	2	7	88*	3
96	74*	13	9	4
97	13	79*	5	3
98	3	85*	5	6
99	12	7	80*	2
100	90*	2	3	5
101	6	88*	3	2
102	7	3	85*	4
103	78*	2	10	9
104	2	5	2	91*
105	3	1	94*	1
106	97*	1	1	0
107	1	2	11	85*
108	0	1	97*	0
109	0	97*	1	1
110	6	5	10	80*

*Indicates correct response. The total percent of responses to each item may not equal 100% due to rounding error and omitted responses.

GRADE 11 MATHEMATICS - Percent responding to each alternative (based on a random sample of 2,375)

Item No.	A	B	C	D
1	0	1	1	98*
2	1	96*	3	1
3	0	0	100*	0
4	0	97*	0	3
5	94*	3	3	1
6	1	1	98*	1
7	3	20	5	71*
8	3	5	9	82*
9	95*	3	1	1
10	18	2	6	74*
11	1	3	2	95*
12	7	3	3	87*
13	3	4	90*	3
14	1	93*	4	2
15	9	11	63*	17
16	6	7	8	79*
17	4	86*	4	7
18	66*	18	15	1
19	87*	5	7	1
20	2	92*	6	1
21	56*	14	7	23
22	19	3	77*	1
23	2	90*	5	3
24	93*	5	1	1
25	93*	5	1	2
26	6	54*	7	33
27	1	3	7	89*
28	6	86*	3	5
29	6	7	4	83*
30	83*	5	5	6
31	9	4	85*	2
32	1	4	92*	4
33	6	1	2	90*
34	97*	1	0	1
35	5	6	7	82*
36	0	98*	1	1
37	1	9	89*	1
38	10	19	20	52*
39	92*	1	5	1
40	6	9	2	84*
41	2	1	96*	1
42	8	5	85*	1
43	83*	7	4	5
44	4	85*	7	5
45	64*	16	8	11
46	25	71*	3	1
47	8	57*	20	14
48	95*	1	4	0
49	4	64*	25	6
50	4	7	81*	8
51	5	91*	3	1
52	12	78*	8	2
53	88*	6	1	5
54	6	11	74*	8
55	1	4	93*	1
56	4	1	12	82*
57	70*	2	27	1
58	1	1	96*	2
59	1	96*	1	1
60	3	5	85*	7
61	1	95*	2	1
62	3	15	6	76*
63	1	1	97*	0
64	5	87*	3	5
65	3	1	95*	0
66	3	88*	4	5
67	10	69*	10	11
68	12	21	61*	6
69	3	3	5	89*
70	1	96*	2	1
71	1	1	2	96*
72	2	3	68*	27
73	74*	8	13	4
74	24	15	6	55*
75	94*	1	3	3
76	5	20	11	63*
77	97*	2	1	1
78	2	1	4	93*
79	94*	4	1	1
80	2	14	82*	2
81	4	8	11	76*
82	5	89*	4	2
83	7	83*	8	2
84	11	23	57*	9
85	1	12	3	84*
86	14	7	76*	3
87	3	2	2	93*
88	2	5	79*	13
89	0	16	81*	2
90	15	72*	12	1

*Indicates correct response. The total percent of responses to each item may not equal 100% due to rounding error and omitted responses.

APPENDIX D

COMMUNITY TYPES AND DISTRICT FACTOR GROUPINGS

I. Definitions

A. Community Types

1 — Urban Center (UC): densely populated with extensive development.
2 — Urban-Suburban (US): near an urban center but not as highly developed, with larger residential areas.
4 — Suburban (S): predominantly single-family residential within a short distance of an urban area.
5 — Suburban-Rural (SR): rapidly developing area, but still large tracts of open land available for development.
6 — Rural (R): scattered small communities and isolated single-family dwellings.
7 — Rural Center (RC): high density core area with surrounding rural municipalities.
8 — Rural Center Rural (RCR): small developed core area surrounded by rural areas.
9 — Vocational (V): primary emphasis on vocational training under a separate educational jurisdiction.
0 — Regional District (R): an educational jurisdiction established to service several surrounding communities.

B. District Factor Groupings

Data from the 1970 United States Census were used to develop the District Factor Groupings (DFG) for the Phase II interpretations. These groupings replace the four geographical quadrants which were used in reporting the results for 1972 and 1973.

To obtain a measure of the socioeconomic background of the school districts in New Jersey, a factor analysis was performed on a series of 1970 census variables known to contribute to a district's socioeconomic background status.

Factor analysis is a statistical method by which the pattern of relationships between a set of variables may be analyzed to determine a small number of independent, underlying dimensions (or factors) to account for the observed relationships among a set of variables.

The type of factor analysis used for this study was an iterative principle component analysis with a varimax rotation.

There were eight variables, which measure the many facets of socioeconomic status, used in the factor analysis. The following variables were used to determine a district's socioeconomic status:

1. Education — The education level of males and females 25 years and older:

A.	number school years completed (including nursery and kindergarten)	(1)
B.	1-4 years elementary	(2)
C.	5-6 years elementary	(3)
D.	7 years elementary	(4)
E.	8 years elementary	(5)
F.	1-3 years high school	(6)
G.	4 years high school	(7)
H.	1-3 years college	(8)
I.	4 years college	(9)
J.	5 or more years college	(10)

2. Occupation — The National Opinion Research Center (NORC) in 1947 undertook a study to determine the prestige with which occupations were viewed. In 1961, A. J. Reiss (Occupation and Social Status, Free Press, 1961) updated the NORC work. The major occupations were determined by averaging the prestige rankings of the occupations comprising each category. The categories (ranked from high to low) were as follows:

A.	Old and New Professionals	(11)
B.	Managers, Officials, and Proprietors	(10)
C.	Quasi-professionals	(9)
D.	Craftsmen, Foremen, and Kindred Workers	(8)
E.	Clerical and Kindred Workers	(7)
F.	Sales Workers	(6)
G.	Protective Services Workers	(5)
H.	Operatives and Kindred Workers	(4)
I.	Farm Workers	(3)
J.	Service Workers (except private and protective)	(2)
K.	Laborers	(1)

3. Mobility — Percent of persons living in the same housing unit for at least the past ten years.

4. Density — Number of people per housing unit.

5. Urbanization — Percent urban population of the district.

6. Income — Average family income.

7. Unemployment — Percent of experienced unemployed males and females 16 years and older.

8. Poverty — Percent of families below the poverty level.

The factor analysis determined two significant factors or dimensions of the eight variables. Based on the interpretation of the significant factors, the first factor was determined to be a factor measuring socioeconomic status.

Based on the socioeconomic factor, a factor score was generated for each of the school districts included in the analysis. The districts were then ranked according to their factor score and cut-points were established to divide the districts into ten District Factor Groups. The cut-points were determined so that all District Factor Groups would be comprised of approximately the same number of schools districts.

The ten District Factor Groups were labeled from "A" to "J" with "J" containing those districts with the highest factor scores.

No school district census information was available for school districts with a student enrollment of less than 300; therefore, these school districts were excluded from the analysis. These school districts were placed in a District Factor Group called "Z." Vocational-technical schools were placed in a separate category called "V."

The relative importance of the eight variables in the composition of the factor is:

Educational Background of the District	27.82%
Occupational Background of the District	24.17%
Per Capita Income of the District	19.26%
Percent Poverty Level	13.32%
Unemployment Rate	10.38%
Population Density	4.19%
Degree of Urbanization	0.83%
Population Mobility	0.03%